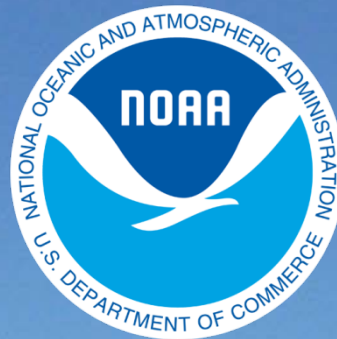


# BookletChart™

## Chesapeake Bay Entrance

NOAA Chart 12221

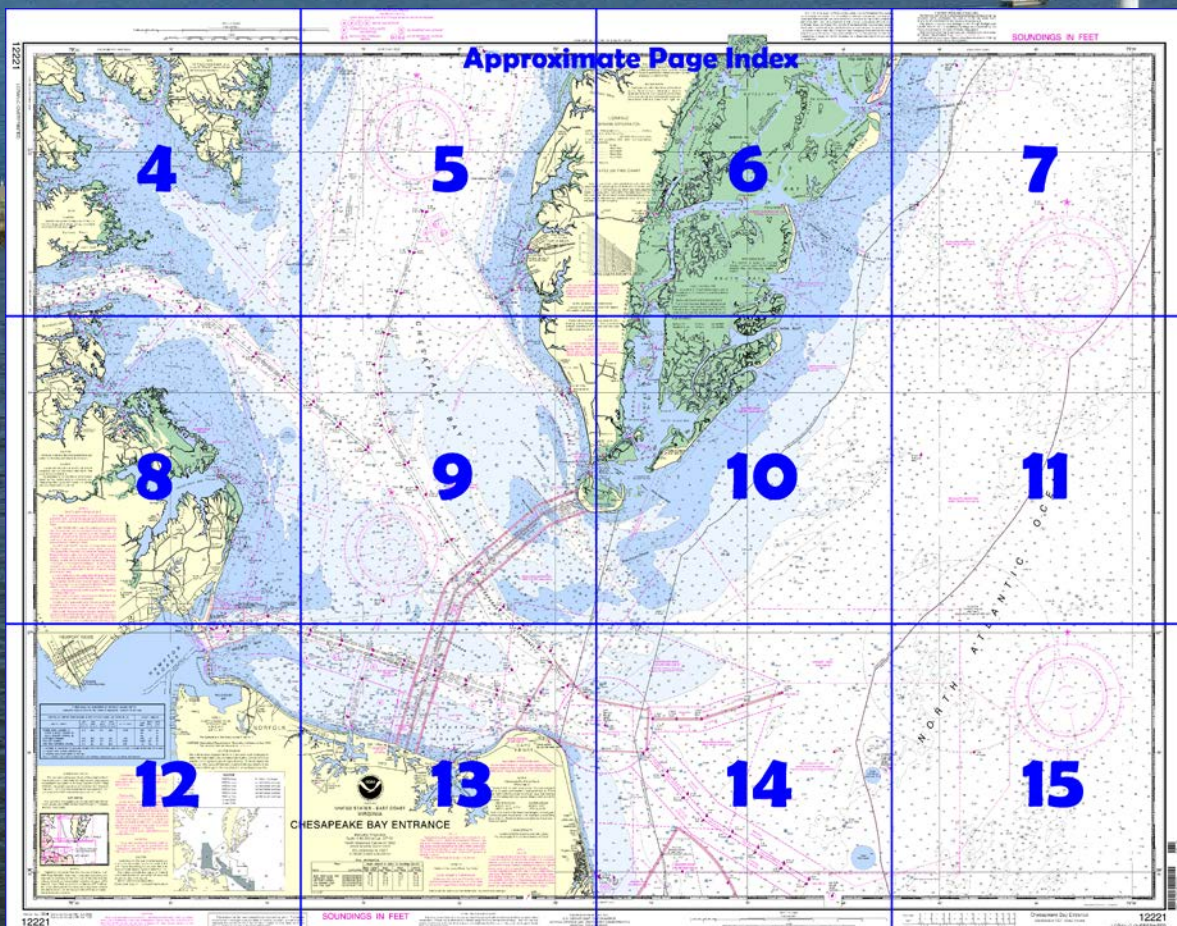


*A reduced-scale NOAA nautical chart for small boaters*

*When possible, use the full-size NOAA chart for navigation.*



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



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**National Oceanic and Atmospheric Administration**  
**National Ocean Service**  
**Office of Coast Survey**  
[www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov)  
**888-990-NOAA**

### What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

### What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

### Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/ncd/searchbychart.php?chart=12221>



#### (Selected Excerpts from Coast Pilot)

**Chesapeake Bay**, the largest inland body of water along the Atlantic coast of the United States, is 168 miles long with a greatest width of 23 miles. The bay is the approach to Norfolk, Newport News, Baltimore, and many lesser ports. Deep-draft vessels use the Atlantic entrance, which is about 10 miles wide between Fishermans Island on the north and Cape Henry on the south. Medium-draft vessels can enter from Delaware Bay on the north via Chesapeake

and Delaware Canal, and light-draft vessels can enter from Albemarle Sound on the south via the Intracoastal Waterway.

The waters surrounding a vessel that is carrying liquefied petroleum gas are a **safety zone** while the vessel transits the Chesapeake Bay and Elizabeth River. (See **165.506**, chapter 2, for limits and regulations.)

**North Atlantic Right Whales.**—Endangered North Atlantic right whales may occur within 30 miles of the Virginia coasts in the approaches to the Chesapeake Bay (peak season: November through April, although right whales have been sighted in the area year round). (See **North Atlantic Right Whales**, indexed as such in Chapter 3, for more information on right whales and recommend measures to avoid collisions.)

All vessels 65 feet or greater in length overall (L.O.A.) and subject to the jurisdiction of the United States are restricted to speeds of 10 knots or less in a Seasonal Management Area existing around the entrance to the Chesapeake Bay between Nov. 1 and Apr. 30. The area is defined as the waters within a 20-nm radius of 37°00'36.9"N., 75°57'50.5"W. (See **50 CFR 224.105** in Chapter 2 for regulations, limitations, and exceptions.)

**Mileages.**—Many of the distances in this and later Chesapeake Bay chapters are given in nautical miles above the **Virginia Capes**, or "the **Capes**," which is a short way of referring to a line from Cape Charles Light to Cape Henry Light.

**Chesapeake Light** (36°54'17"N., 75°42'46"W.), 117 feet above the water, is shown from a blue tower on a white superstructure on four piles, 14 miles eastward of Cape Henry. The name CHESAPEAKE is displayed on all sides. A sound signal and racon are at the light. A fish haven, consisting of sunken fishing-boat hulls and marked by private unlighted buoys, is about 0.4 mile southwestward of the light.

**Cape Charles**, on the north side of the entrance, is low and bare, but the land back of it is high and wooded. **Wise Point** is the most southerly mainland tip of the cape. Low **Fishermans Island**, a National Wildlife Refuge, is 1 mile south of Wise Point.

The southwest end of **Smith Island** is 2.4 miles eastward of Wise Point; the island is 6 miles long, low and sparsely wooded, and awash at half tide midway along its length.

**Cape Charles Light** (37°07'23"N., 75°54'23"W.) is shown from an octagonal, pyramidal skeleton tower, upper part black and lower part white, on the southwestern part of Smith Island. The ruins of the old lighthouse are in shallow water 0.7 mile eastward of the light.

**Smith Island Shoal**, which breaks in heavy weather, has depths of 21 feet 7.5 miles east-southeast of Cape Charles Light. Depths less than 40 feet extend another 5 miles northeastward. Outer limits of the shoal area are marked by a lighted buoy.

**Nautilus Shoal**, which extends 4 miles southeastward from Fishermans Island, has patches with depths of 6 to 11 feet. The buoyed channel along the southwest side of Nautilus Shoal, thence northward between Fishermans Island and **Inner Middle Ground**, had a controlling depth of about 16 feet in 1977-1980. The channel is used by local vessels drawing up to 12 feet. This channel is not recommended for strangers because of shifting shoals. In 1996, a 10-foot shoal was reported 1.5 miles S of Fishermans Island in about 37°03'31.2"N., 075°57'27.0"W.

Breakers frequently occur along the axis of Inner Middle Ground, starting on the seaward side of the Chesapeake Bay Bridge-Tunnel and continuing the entire length of the shoal.

**Currents.**—The currents have considerable velocity in the inlets and in the narrow channels connecting the inlets with adjacent bays and sounds. Velocities of as much as 3 knots may be encountered at times in places where the currents are strongest.

### U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Norfolk

Commander

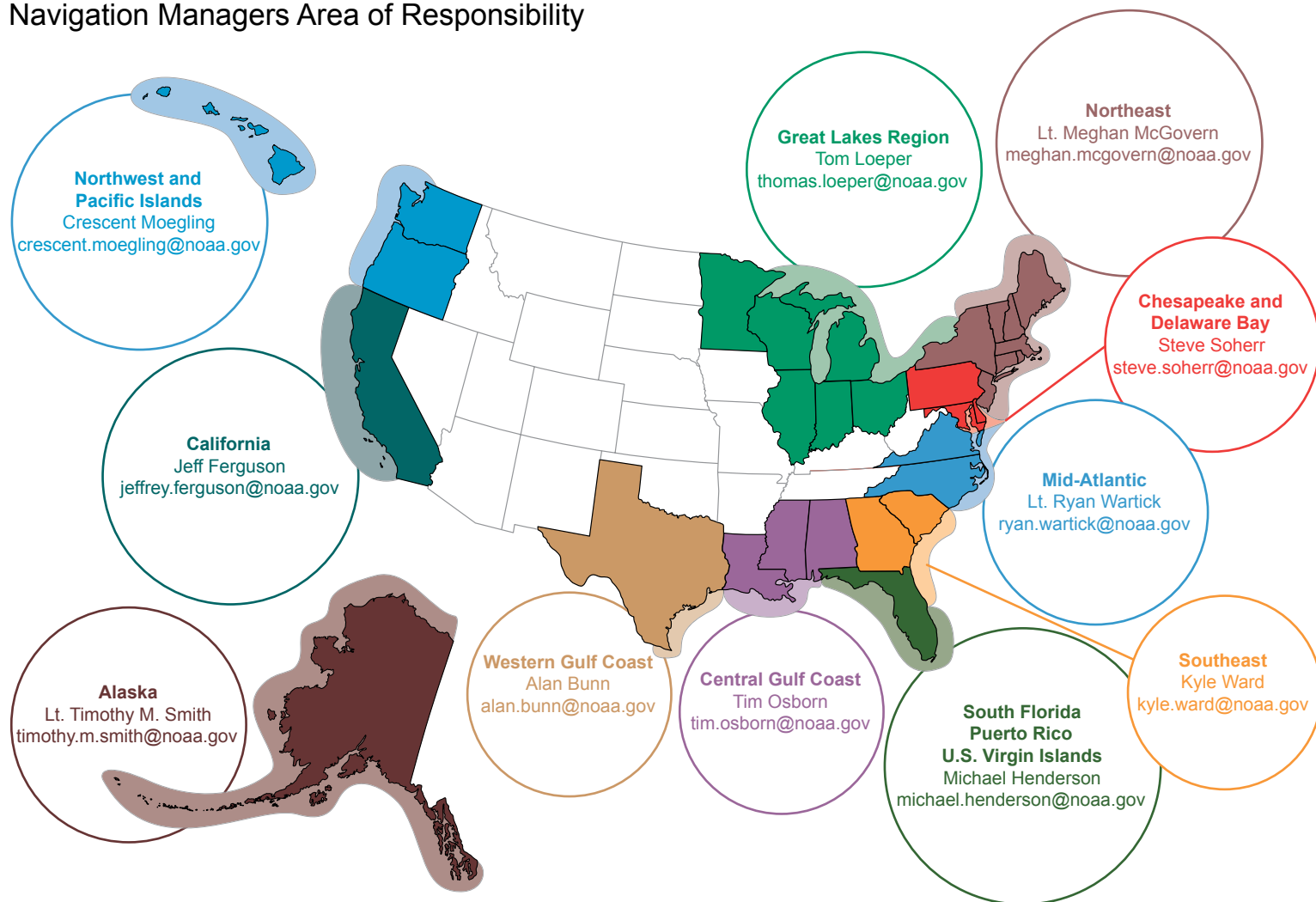
5th CG District

Norfolk, VA

(575) 398-6231



# Navigation Managers Area of Responsibility



**NOAA's navigation managers** serve as ambassadors to the maritime community.

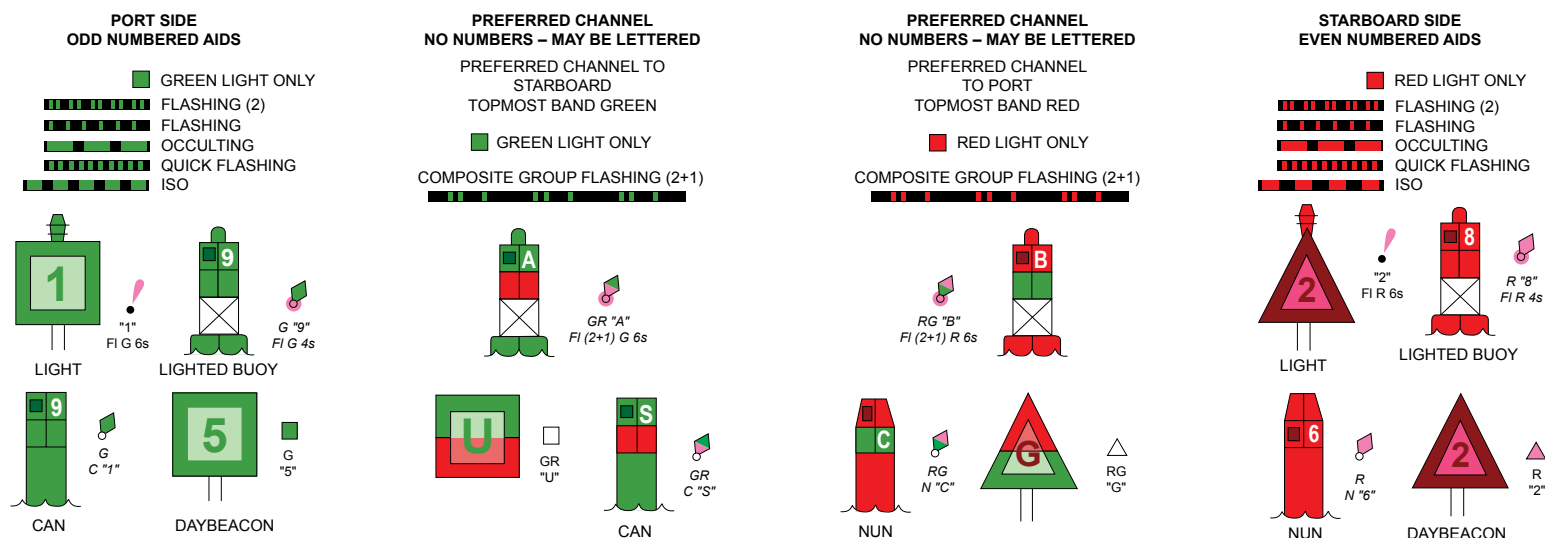
They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit [nauticalcharts.noaa.gov/service/navmanagers](http://nauticalcharts.noaa.gov/service/navmanagers)

To make suggestions or ask questions online, go to [nauticalcharts.noaa.gov/inquiry](http://nauticalcharts.noaa.gov/inquiry).

To report a chart discrepancy, please use [ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx](http://ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx).

## Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers



For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area.

These volumes are available online at <http://www.navcen.uscg.gov>

12221

4

SCALE 1:80,000

Nautical Miles

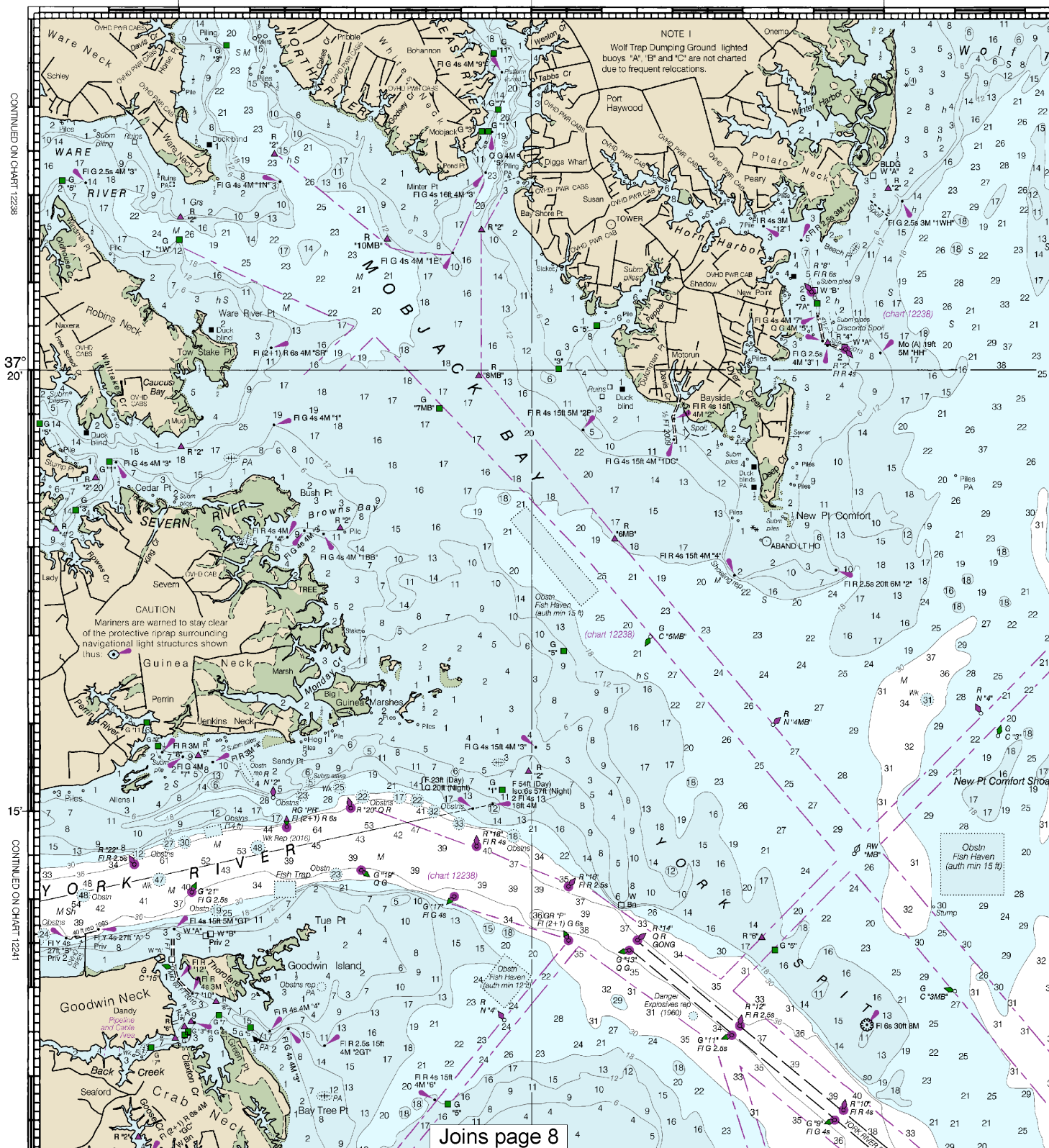


76°25'

CONTINUED ON CHART 12238

20°

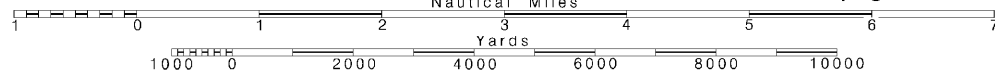
15'



Printed at reduced scale.

SCALE 1:80,000

See Note on page 5.



Note: Chart grid lines are aligned with true north.

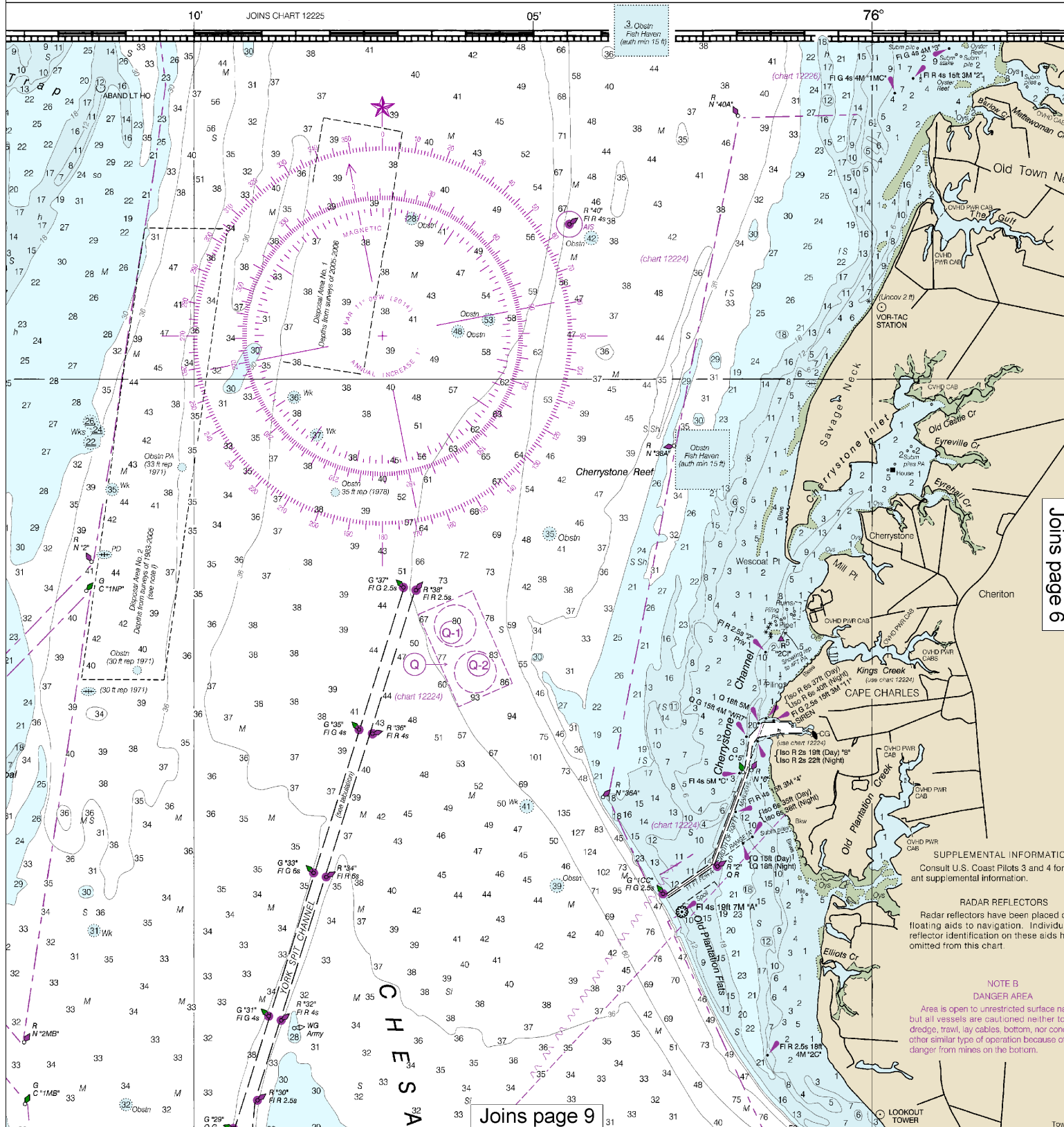
# ANCHORAGE AREAS

110.168 (see note A)

Limits and designations of anchorage areas are shown in magenta.

- |                 |                                 |             |                            |
|-----------------|---------------------------------|-------------|----------------------------|
| (A) (B) (C) (D) | NAVAL ANCHORAGE                 | (Q)         | QUARANTINE ANCHORAGE       |
| (E)             | COMMERCIAL EXPLOSIVES ANCHORAGE | (Q-1) (Q-2) | QUARANTINE ANCHORAGE BERTH |
| (E-1)           | EXPLOSIVES HANDLING BERTH       |             |                            |

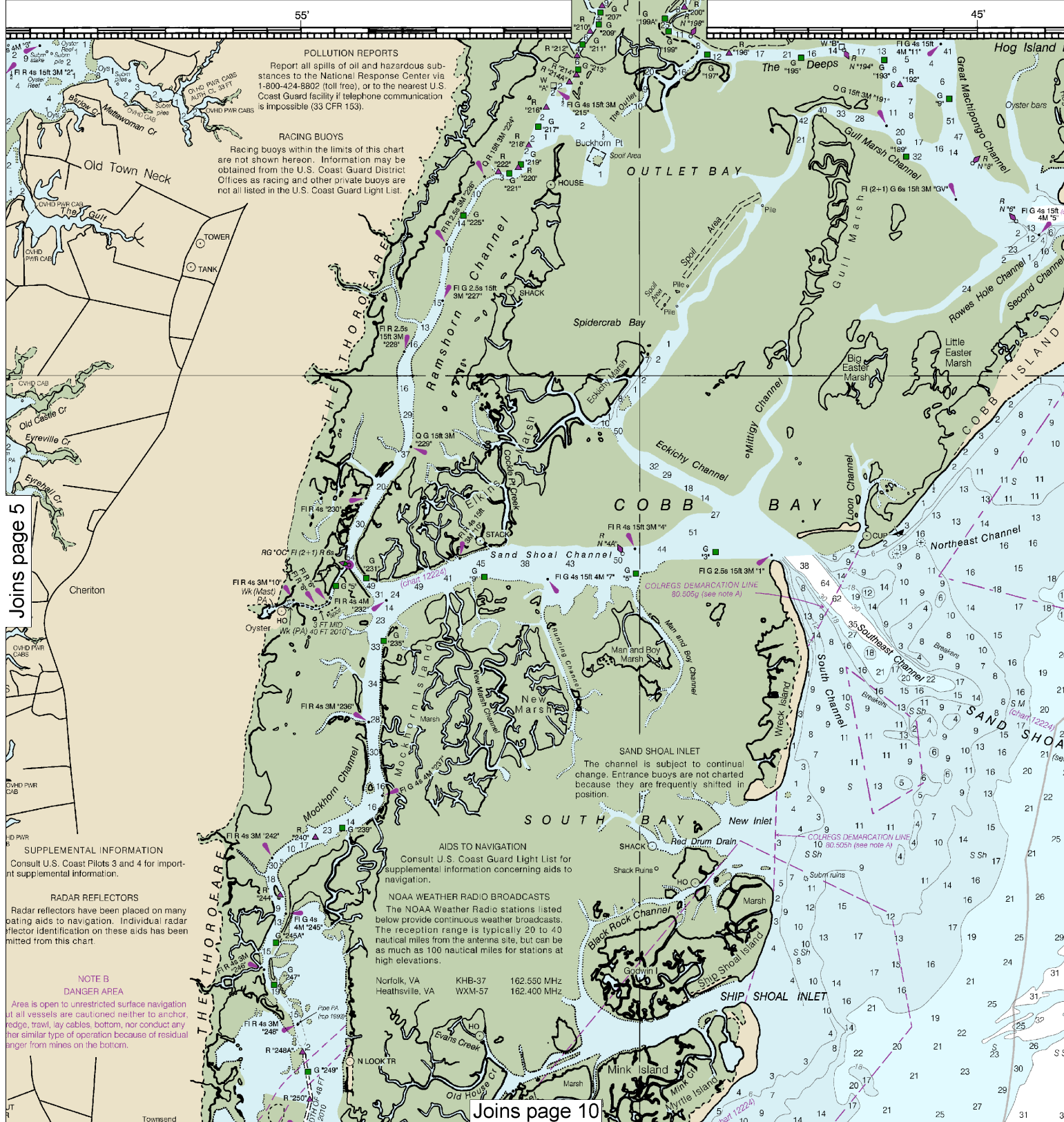
Formerly C&GS 1222, 1st Ed., Mar. 1913



This BookletChart was reduced to 70% of the original chart scale.  
The new scale is 1:114285. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.



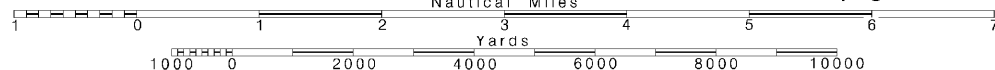
Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, the laws of the United States apply. The Three Nautical Mile Line, previously established by the United States, is retained as it continues to be the outer limit of the territorial sea. The 6-nautical mile Natural Resources Line, established by the United States, is retained as the outer limit of the Exclusive Economic Zone of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line is retained as the inner limit of Federal fisheries jurisdiction and the outer limit of jurisdiction of the states. The 24-nautical mile Contiguous Zone, established by Presidential Proclamation, is retained as the outer limit of the United States' maritime jurisdiction. Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime boundaries are subject to modification.



Joins page 10

~~SCALE 1:80,000~~

See Note on page 5.

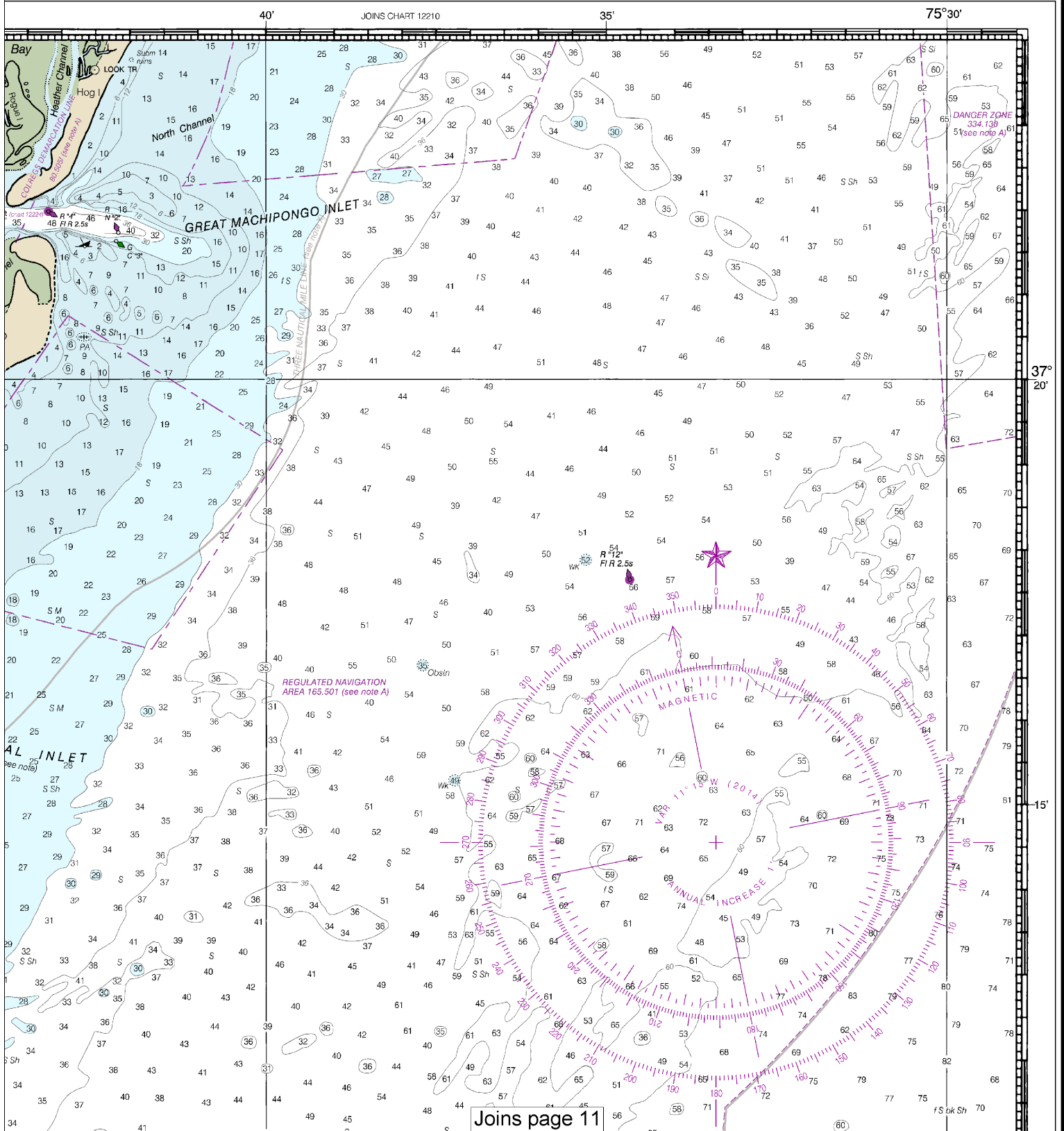


Note: Chart grid lines are aligned with true north.

Presidential Proclamation, previously identified as the Line elsewhere remain in the zone and the 200-nautical Presidential Proclamation. aritime limits are subject

**CAUTION**  
**FISH TRAP AREAS AND STRUCTURES**  
 Mariners are warned that numerous uncharted duck blinds and fishing structures, some submerged, may exist in the fish trap areas. Such structures are not charted unless known to be permanent.  
 Regulations to assure clear passage to and through dredged and natural channels, and to established landings, are prescribed by the Corps of Engineers in the Code of Federal Regulations.  
 Definite limits of fish trap areas have been established in some areas, and those limits are shown thus:  
 Where definite limits have not been prescribed, the location of fishing structures is restricted only by the regulations.

## SOUNDINGS IN FEET



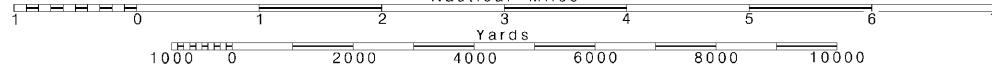
Last Correction: 6/9/2016. Cleared through:  
 LNM: 2516 (6/21/2016), NM: 2716 (7/2/2016)



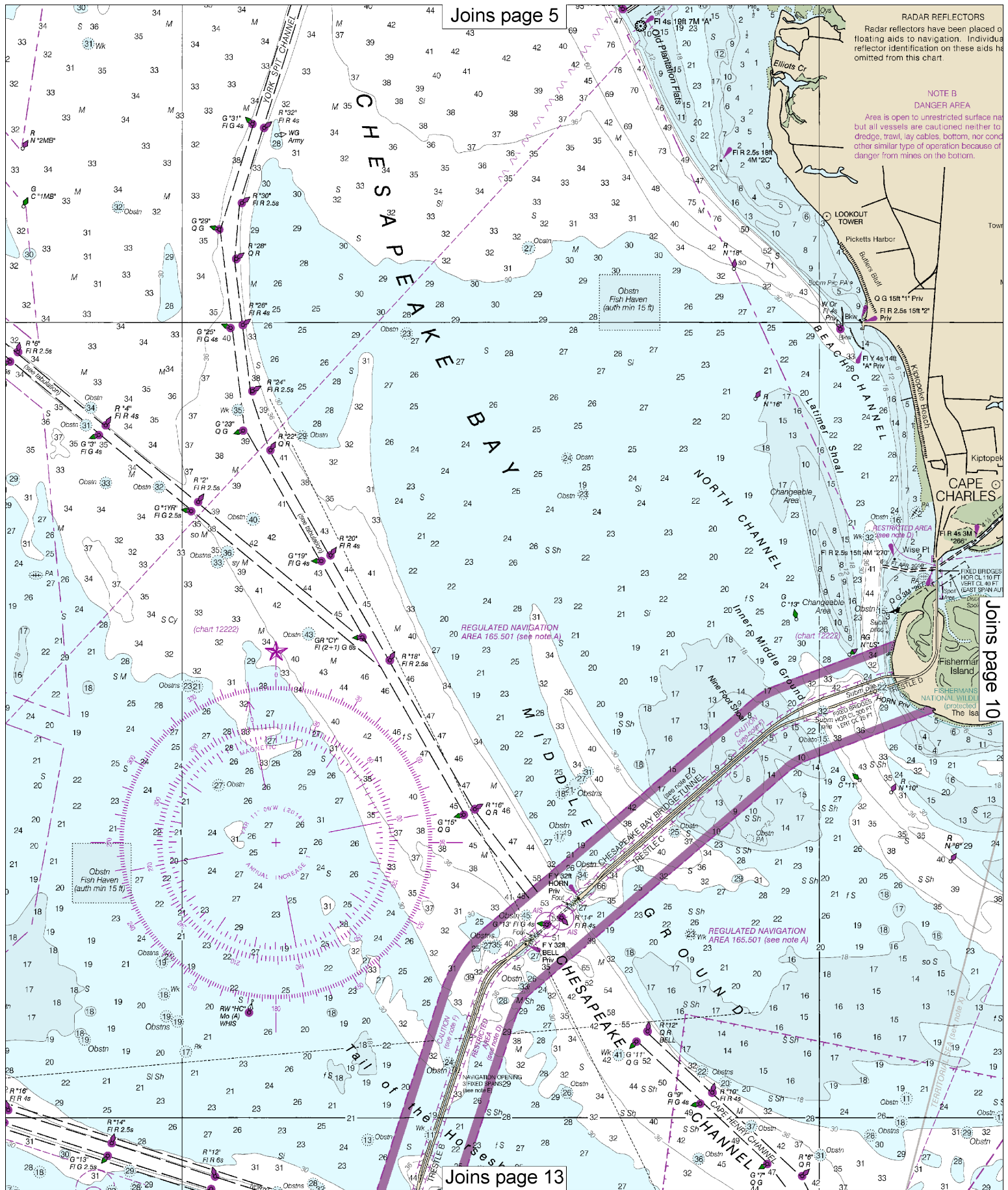
Traffic within the precautionary area may consist of vessels operating between Thimble Shoal and Chesapeake Channels and one of the established traffic lanes. Mariners are advised to exercise extreme care in navigating within this area. The normal Pilot Boarding Area is outlined by a magenta band.

Printed at reduced scale.

See Note on page 5.







Joins page 5

RADAR REFLECTORS  
Radar reflectors have been placed on floating aids to navigation. Individual reflector identification on these aids has been omitted from this chart.

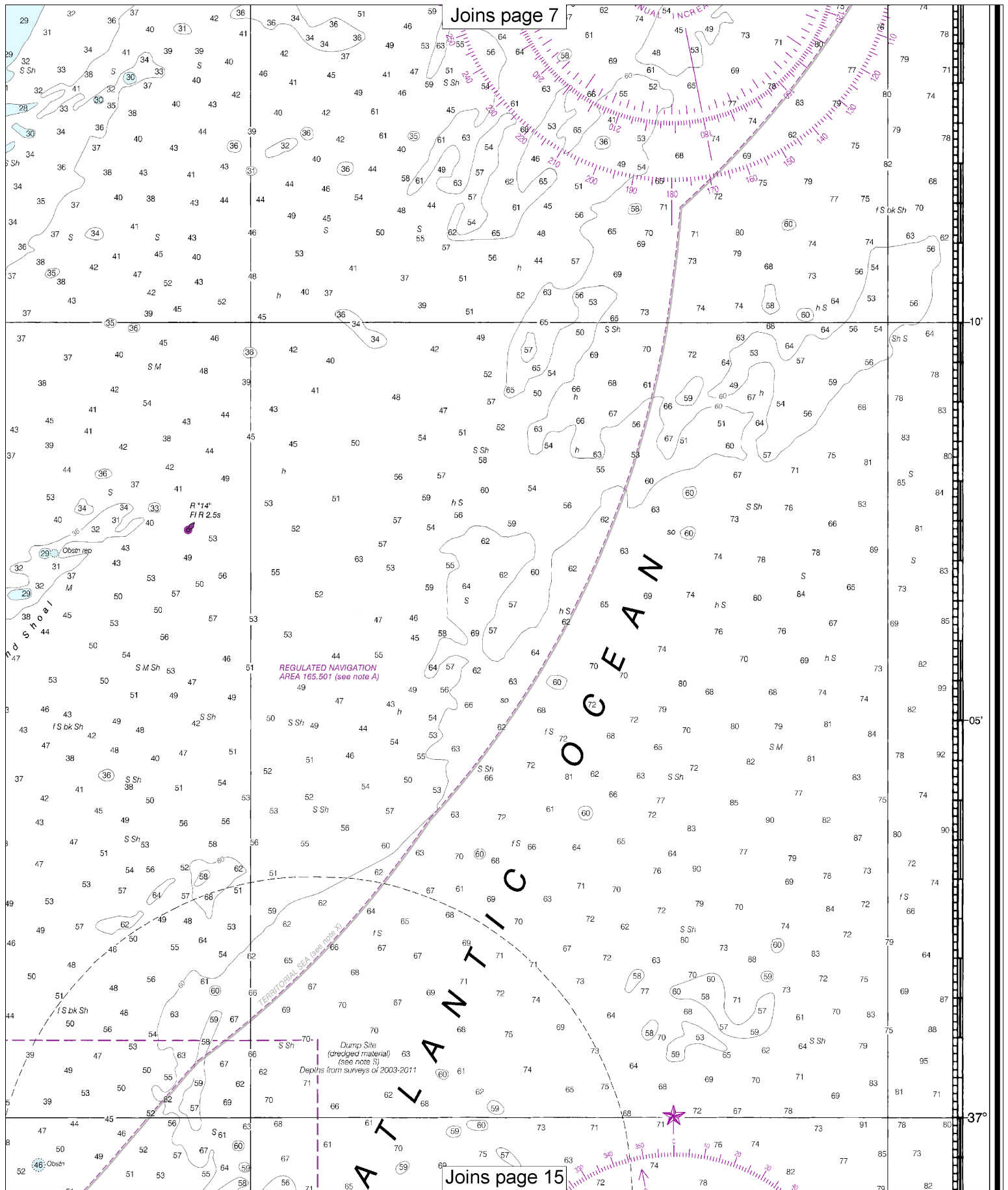
NOTE B  
DANGER AREA  
Area is open to unrestricted surface navigation but all vessels are cautioned neither to dredge, trawl, lay cables, bottom, nor conduct other similar type of operation because of danger from mines on the bottom.

Joins page 10

Joins page 13







Whistle Buoy "CH", on the north end of the route.  
 Avoid, as far as practicable, overtaking other ships operating in the deep water route.  
 Keep as near to the outer limit of the route which lies on the starboard side as is safe and practicable.  
 All other ships approaching the Chesapeake Bay traffic separation scheme should use the appropriate inbound or outbound traffic lane of the traffic separation scheme.  
 Traffic within the precautionary area may consist of vessels operating between Thimble Shoal and Chesapeake Channels and one of the established traffic lanes. Mariners are advised to exercise extreme care in navigating within this area. The normal Pilot Boarding Area is outlined by a magenta band.

Joins page 8

NEWPORT NEWS

HAMPTON ROADS

WILLOUGHBY BAY

NORFOLK

THIMBLE SHOAL AND CHESAPEAKE BAY ENTRANCE CHANNEL DEPTHS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO AUG 2015						
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS	
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET) LENGTH (MILES) DEPTH (FEET)
THIMBLE SHOAL CHANNEL (A)	47.8	50.2	49.9	47.6	8-9-12	1000 13.0 55
NORTH AUXILIARY CHANNEL (B)						450 32
SOUTH AUXILIARY CHANNEL (B)						450 32
CAPE HENRY CHANNEL	45.6	50.0	47.9	43.5	10-11	1000 4.0 50
YORK SPIT CHANNEL	39.5	49.4	49.7	45.1	8-15	1000C 19.0 50
YORK RIVER ENTRANCE CHANNEL	36.2	37.9	37.5	36.8	11-11;2-12	750 13.8 37

A. CHANNEL IS RESTRICTED TO EXCLUDE VESSELS AND TOWS DRAWING LESS THAN 25 FEET. CHANNEL MAINTAINED TO 50 FEET.  
 B. PROJECT MAINTENANCE DISCONTINUED  
 C. CHANNEL WIDTH MAINTAINED TO 800 FEET  
 NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

NOTE C  
 HAMPTON ROADS TUNNEL  
 APPROACH SPANS  
 HOR CL 45 FT  
 VERT CL 10 FT

For Symbols and Abbreviations see Chart No. 1

COLREGS: International Regulations for Preventing Collisions at Sea, 1972.  
 Demarcation lines are shown thus: ---

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

HORIZONTAL DATUM  
 The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.524" northward and 1.216" eastward to agree with this chart.

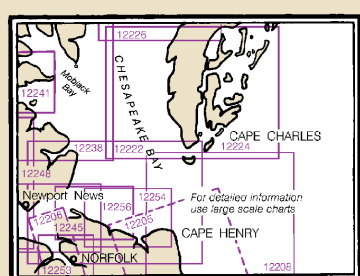
AUTHORITIES  
 Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers and U.S. Coast Guard.

CAUTION  
 SUBMARINE PIPELINES AND CABLES  
 Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:  
 Pipeline Area Cable Area

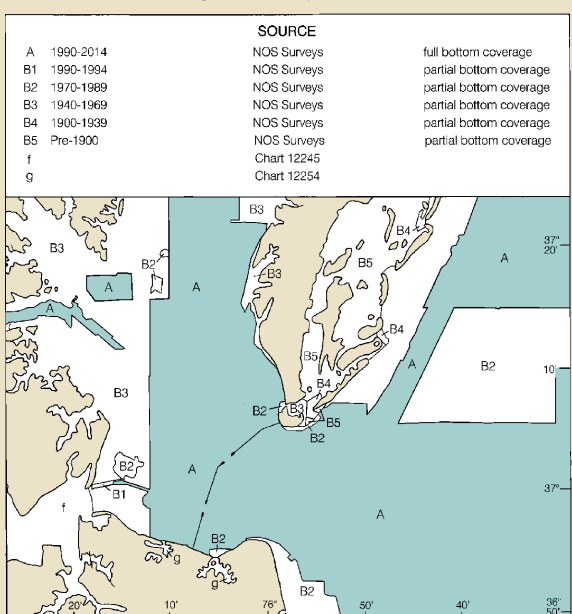
Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.  
 Covered wells may be marked by lighted or unlighted buoys.

WARNING  
 The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

CAUTION  
 Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.  
 Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.  
 Station positions are shown thus:  
 (Accurate location) (Approximate location)



NOTE S  
 Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilots appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown. Lighted buoys A through F are uncharted due to frequent relocations.



82nd Ed., Feb. 2014

12221

Last Correction: 6/9/2016. Cleared through:  
 LNM: 2516 (6/21/2016), NM: 2716 (7/2/2016)

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov

NOAA encourages users to submit inquiries, discrepancies or comments about this chart at <http://www.nauticalcharts.noaa.gov/staff/contact.htm>.

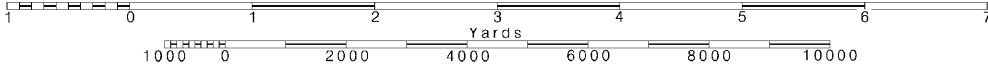
12

Note: Chart grid lines are aligned with true north.

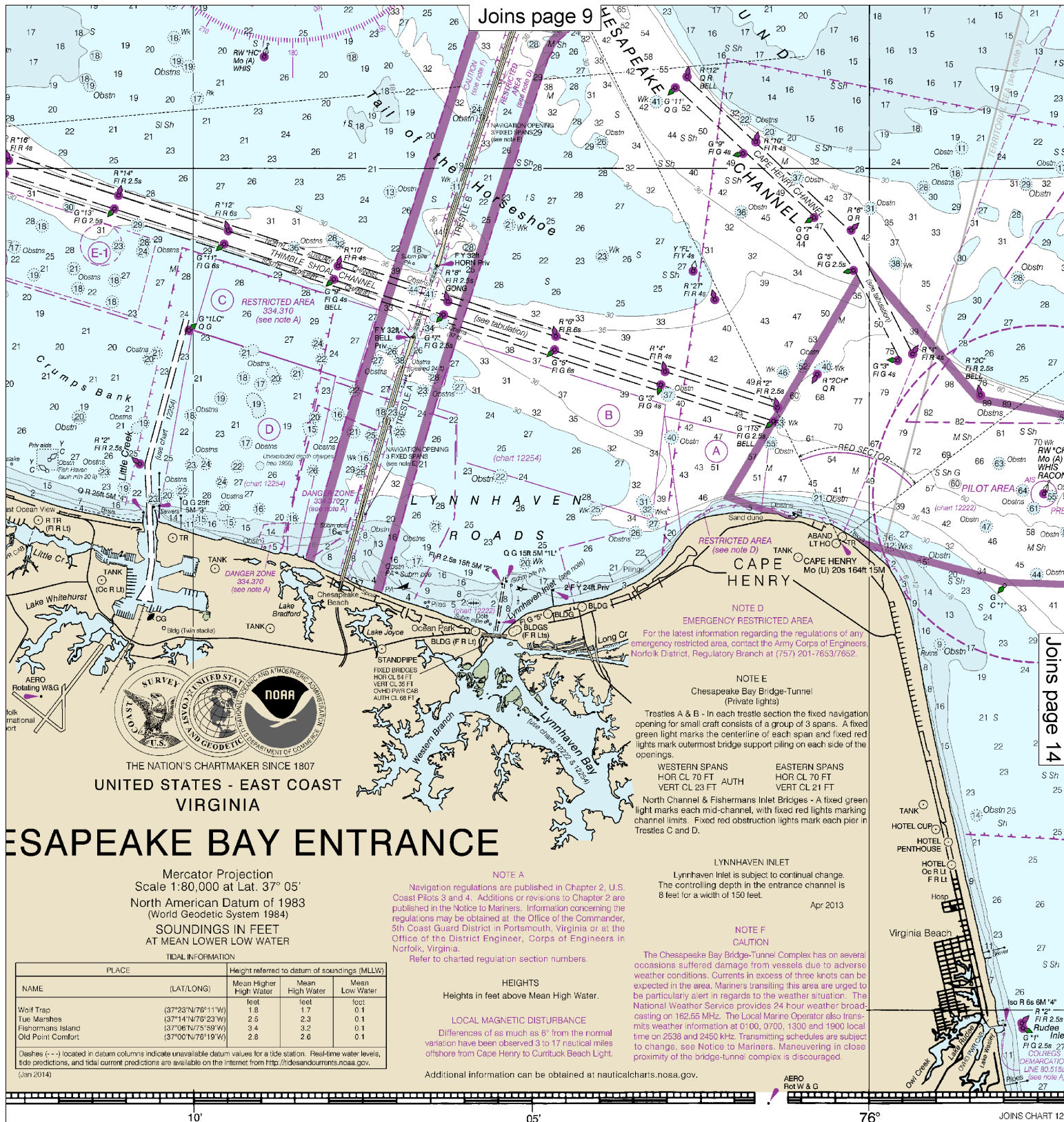
Printed at reduced scale.

SCALE 1:80,000  
 Nautical Miles

See Note on page 5.

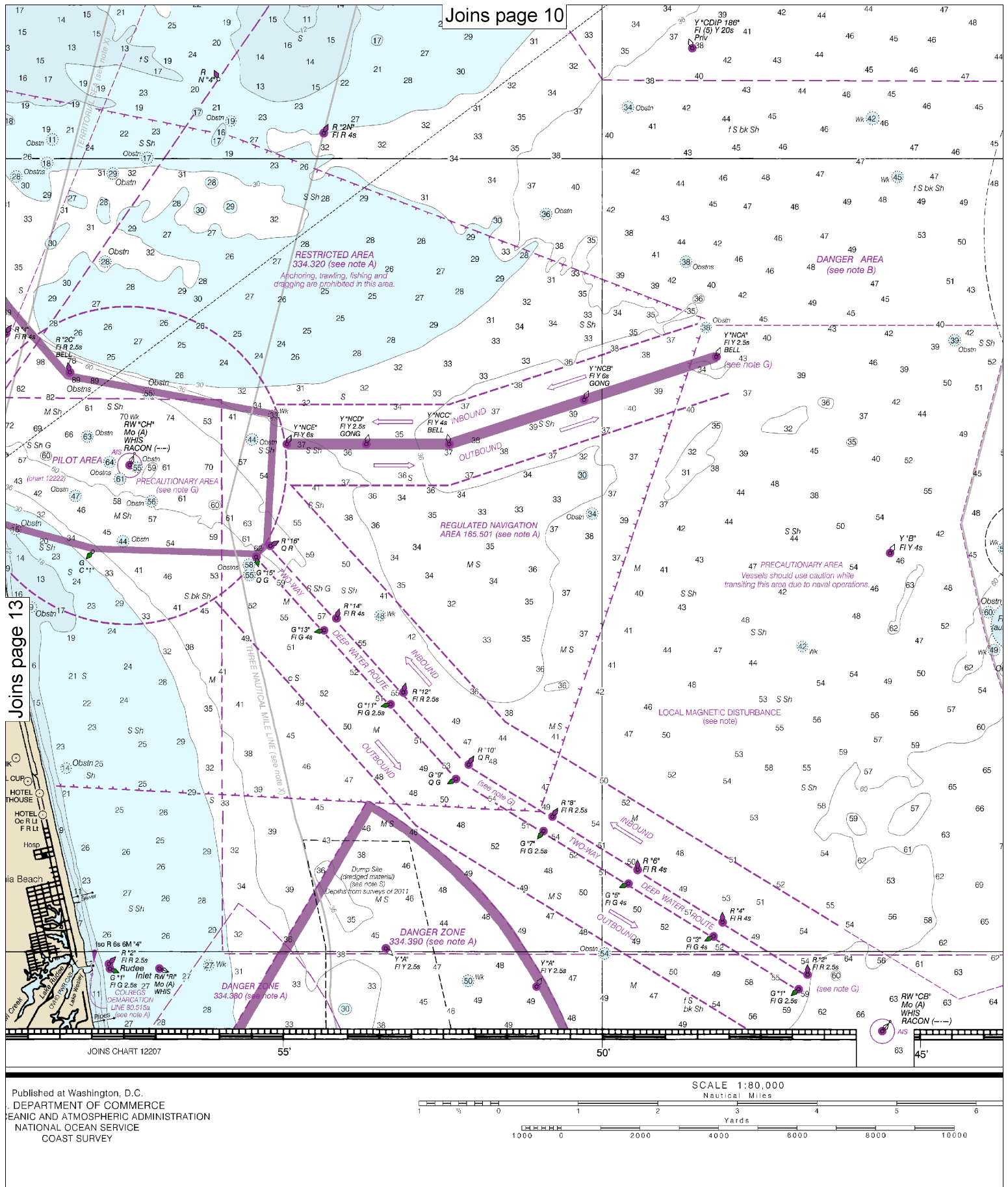






## SOUNDINGS IN FEET

Published at Washington, D.C.  
U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SERVICE  
COAST SURVEY



14

Note: Chart grid lines are aligned with true north.

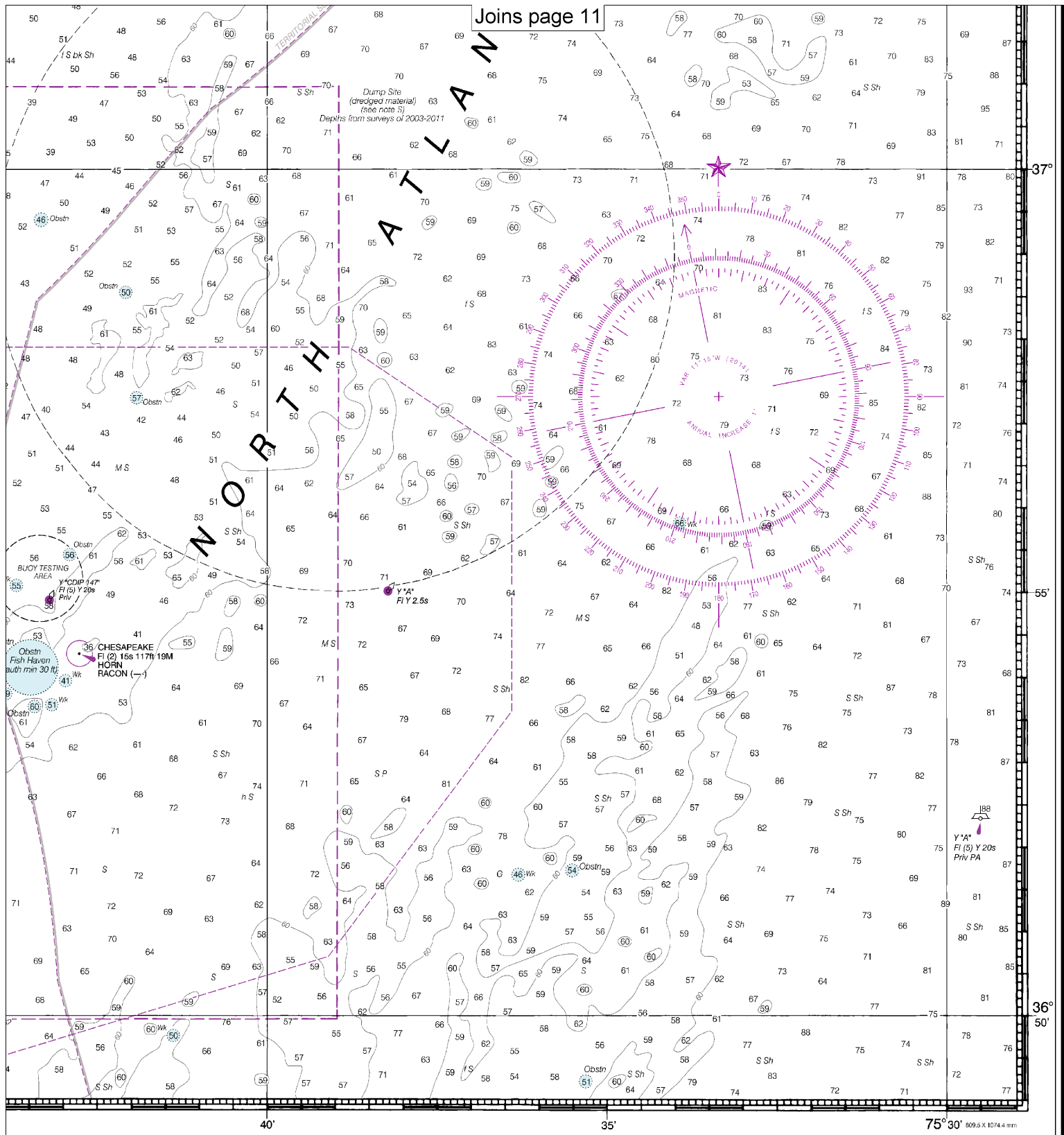
Printed at reduced scale.

SCALE 1:80,000  
Nautical Miles

See Note on page 5.





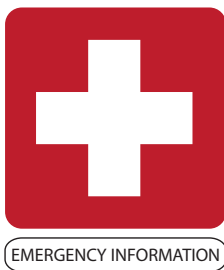


Joins page 11

FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

Chesapeake Bay Entrance  
SOUNDINGS IN FEET - SCALE 1:80,000

12221



EMERGENCY INFORMATION

## VHF Marine Radio channels for use on the waterways:

**Channel 6** – Inter-ship safety communications.

**Channel 9** – Communications between boats and ship-to-coast.

**Channel 13** – Navigation purposes at bridges, locks, and harbors.

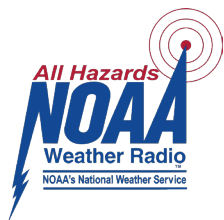
**Channel 16** – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

**Channel 22A** – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

**Channels 68, 69, 71, 72 and 78A** – Recreational boat channels.

**Getting and Giving Help** — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



**NOAA Weather Radio All Hazards (NWR)** is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

## Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

**HAVE ALL PERSONS PUT ON LIFE JACKETS!**

## Quick References

Nautical chart related products and information	—	<a href="http://www.nauticalcharts.noaa.gov">http://www.nauticalcharts.noaa.gov</a>
Interactive chart catalog	—	<a href="http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml">http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml</a>
Report a chart discrepancy	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx">http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx</a>
Chart and chart related inquiries and comments	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs">http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs</a>
Chart updates (LNM and NM corrections)	—	<a href="http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html">http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html</a>
Coast Pilot online	—	<a href="http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm">http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm</a>
Tides and Currents	—	<a href="http://tidesandcurrents.noaa.gov">http://tidesandcurrents.noaa.gov</a>
Marine Forecasts	—	<a href="http://www.nws.noaa.gov/om/marine/home.htm">http://www.nws.noaa.gov/om/marine/home.htm</a>
National Data Buoy Center	—	<a href="http://www.ndbc.noaa.gov/">http://www.ndbc.noaa.gov/</a>
NowCoast web portal for coastal conditions	—	<a href="http://www.nowcoast.noaa.gov/">http://www.nowcoast.noaa.gov/</a>
National Weather Service	—	<a href="http://www.weather.gov/">http://www.weather.gov/</a>
National Hurricane Center	—	<a href="http://www.nhc.noaa.gov/">http://www.nhc.noaa.gov/</a>
Pacific Tsunami Warning Center	—	<a href="http://ptwc.weather.gov/">http://ptwc.weather.gov/</a>
Contact Us	—	<a href="http://www.nauticalcharts.noaa.gov/staff/contact.htm">http://www.nauticalcharts.noaa.gov/staff/contact.htm</a>



— For the latest news from Coast Survey, follow **@NOAAcharts**



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.